Poultry Waste Generation and Land Application in the Illinois River Watershed and Phosphorus Loads to the Illinois River Watershed Streams and Rivers and Lake Tenkiller

Expert Report of Dr. B. Engel

For
State of Oklahoma
In Case No. 05-CU-329-GKF-SAJ

State of Oklahoma v. Tyson Foods, et al.
(In the United States District Court for the Northern District of Oklahoma)

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2004). A P routing model was created for each gauging location used in the modeling effort (Tahlequah, Baron Fork near Eldon, and Caney Creek). The equations were of the form:

$$P\ Load = a + b * Q * P\ Accumulation + c * Q^2 * P\ Accumulation$$

Where P Load is a daily P load in lbs

a, b, and c are coefficients obtained during equation development

Q is average daily flow rate at USGS gauge

P Accumulation is computed P accumulated in the stream or river